

D3887-041 STANDARD SKIDTUBE ASSY WITH WEARPAD (SHOWN)
D3887-043 STANDARD SKIDTUBE ASSY WITH WEAPLATE (SIMILAR)
D3887-045 STANDARD SKIDTUBE ASSY WITH TRAINING WEARPLATE (SIMILAR)

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3885-1 WEB
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D3887-041 = 32.0 lbs
D3887-043 = 37.0 lbs
D3887-045 = 38.1 lbs
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 8.5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP 0.020" DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 10) INSERT D3885-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP
- 11) INSERT D3492-045 PLUG ASSY INTO $\varnothing 0.197$ HOLES (BOTH SIDES OF TUBE)
- 12) USE DART DRILL TEMPLATE DT8931 TO LOCATE AND DRILL $\varnothing 0.297$ HOLES FOR WEARPLATE INSERTS. INSTALL AELS-1032-130 INTO D3887-11 ONLY. INSTALL AN3C5A BOLTS AND NAS1149C0332R WASHERS WITH SIKAFLEX-241/-291.

| ITEM | QTY -041 | QTY -043 | QTY -045 | P/N | DESCRIPTION |
|------|-------------|-------------|-------------|---------------|---|
| 1 | X | | | D3887-041 | STD SKIDTUBE ASSY WITH WEARPAD |
| 2 | | X | | D3887-043 | STD SKIDTUBE ASSY WITH WEARPLATE |
| 3 | | | X | D3887-045 | STD SKIDTUBE ASSY WITH TRAINING WEARPLATE |
| 11 | 2 | 2 | 2 | D2855-3 | CAP |
| 12 | 16 | 16 | | D3492-045 | PLUG ASSY |
| 13 | 4 | 4 | 4 | D3672-1 | PHENOLIC WASHER |
| 14 | 8 | 8 | 8 | D3681-1 | SPACER |
| 15 | 5 | | | D3846-1 | GASKET |
| 16 | 1 | | | D3846-11 | GASKET |
| 17 | 5 | 5 | | D3847-1 | WEARPAD |
| 18 | 1 | 1 | | D3847-11 | AFT WEARPAD |
| 19 | | 1 | | D3847-043 | FWD WEARPLATE ASSY |
| 20 | | 1 | | D3847-045 | CENTER WEAPLATE ASSY |
| 21 | | 1 | | D3847-047 | AFT WEARPLATE ASSY |
| 22 | | | 1 | D3849-041 | FWD TRAINING WEARPLATE ASSY |
| 23 | | | 1 | D3849-043 | AFT WEARPLATE ASSY |
| 24 | 1 | 1 | 1 | D3885-1 | STANDARD WEB |
| 25 | 1 | 1 | | D3887-11 | STANDARD SKIDTUBE |
| 26 | | | 1 | D3887-13 | STANDARD SKIDTUBE |
| 27 | 12 | 12 | 12 | D3903-1 | SPACER |
| 28 | | | 16 | D3904-1 | WASHER |
| 41 | 30 | 30 | | ALS4-1032-130 | INSERT |
| 42 | 34 | 34 | 4 | AN3C5A | BOLT |
| 43 | | | 8 | AN3C46A | BOLT |
| 44 | 34 | 34 | | NAS1149C0332R | WASHER (OR AN960C10L) |
| 45 | | | 8 | MS21043-3 | NUT |

UNDER REVIEW

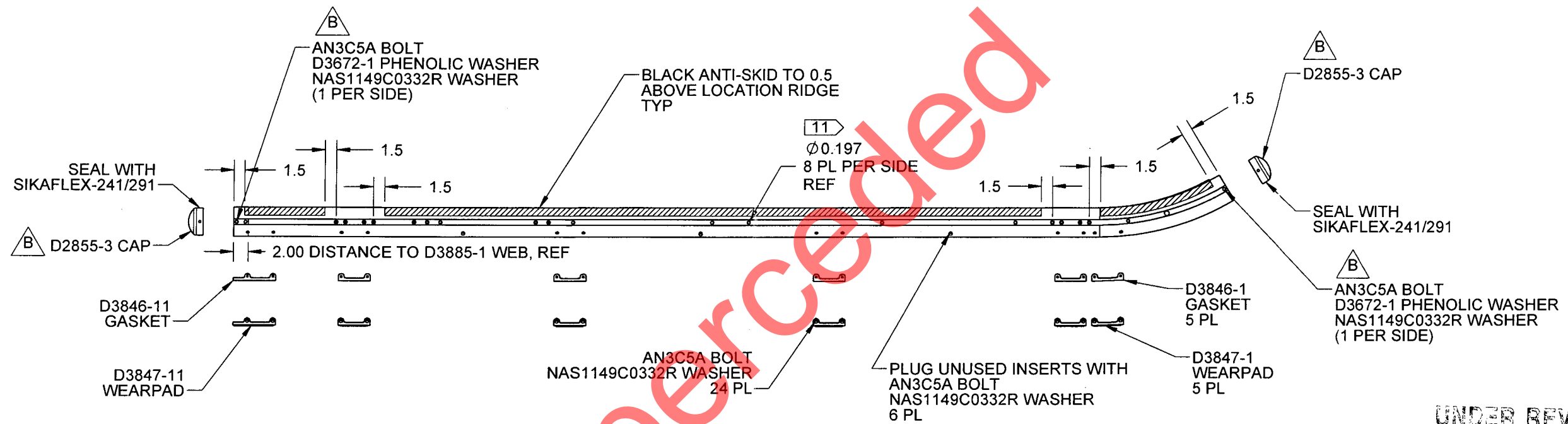
13.02.25 DB

new fastener - FWD CAP

DEO ATTACHED

RELEASED
09/07/15 MD

| | | | |
|------------|---|---|--------------|
| B | ALS4-1032-130 WAS AELS-1032-130. ZN C4-1, C5-7, C3-7; ADD DT8931. ZN A6-1; ADD 134.04. ZN C4-8; D2855-3 WAS D2575 (ZN D4-1, C7-2, C2-2, C7-3, C2-3, C7-4, C2-4); AN3C5A WAS AN3C46A (ZN C6-2, C2-2, C6-3, C2-3, C6-4, C2-4) | RF | 09.06.30 |
| A | NEW ISSUE | RF | 09.03.30 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | RF | DART AEROSPACE USA, INC. | |
| DRAWN | RF | PORT HADLOCK, WA | |
| CHECKED | RF | DRAWING NO. | REV. B |
| MFG. APPR. | RF | D3887 | SHEET 1 OF 8 |
| APPROVED | RF | TITLE | SCALE |
| DE APPR. | RF | A119 STD SKIDTUBE ASSY | NTS |
| DATE | 09.06.30 | COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. | |

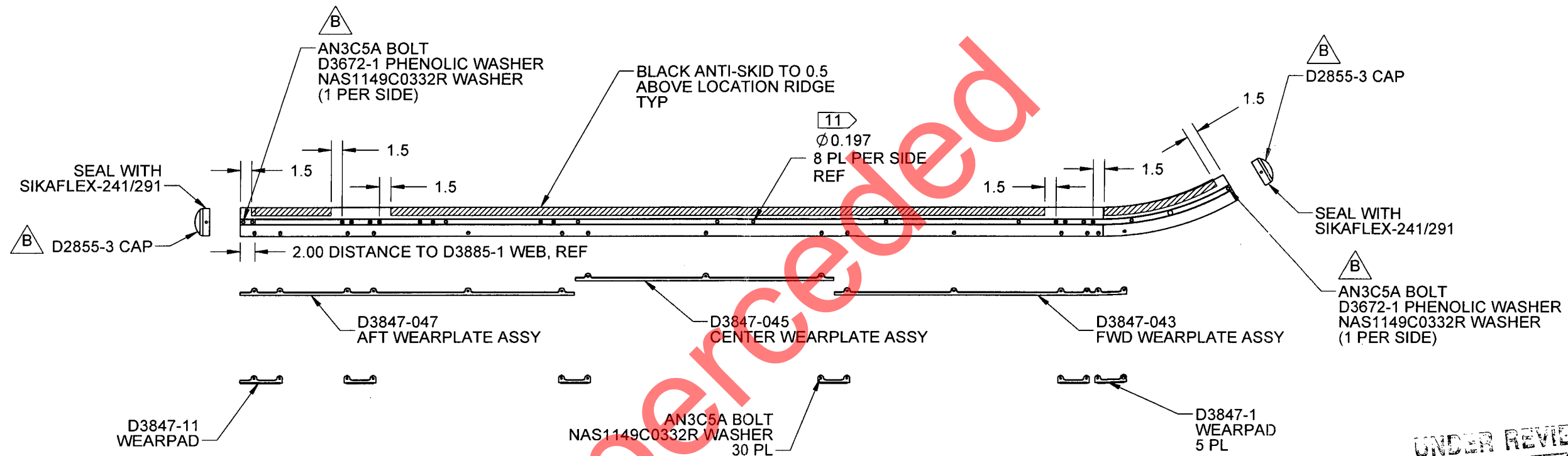


D3887-041 STANDARD SKIDTUBE ASSY WITH WEARPAD
(MAKE FROM D3887-11)

UNDER REVIEW
13.02.25 DB

DEO ATTACHED
RELEASED
P/07/15 MP





| | | | |
|------------|----------|---|--------------|
| DESIGN | RF | DART AEROSPACE USA, INC. PORT HADLOCK, WA | |
| DRAWN | RF | | |
| CHECKED | RF | DRAWING NO. | REV. B |
| MFG. APPR. | RF | D3887 | SHEET 2 OF 8 |
| APPROVED | RF | TITLE | SCALE |
| DE APPR. | RF | A119 STD SKIDTUBE ASSY | NTS |
| DATE | 09.06.30 | COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. | |

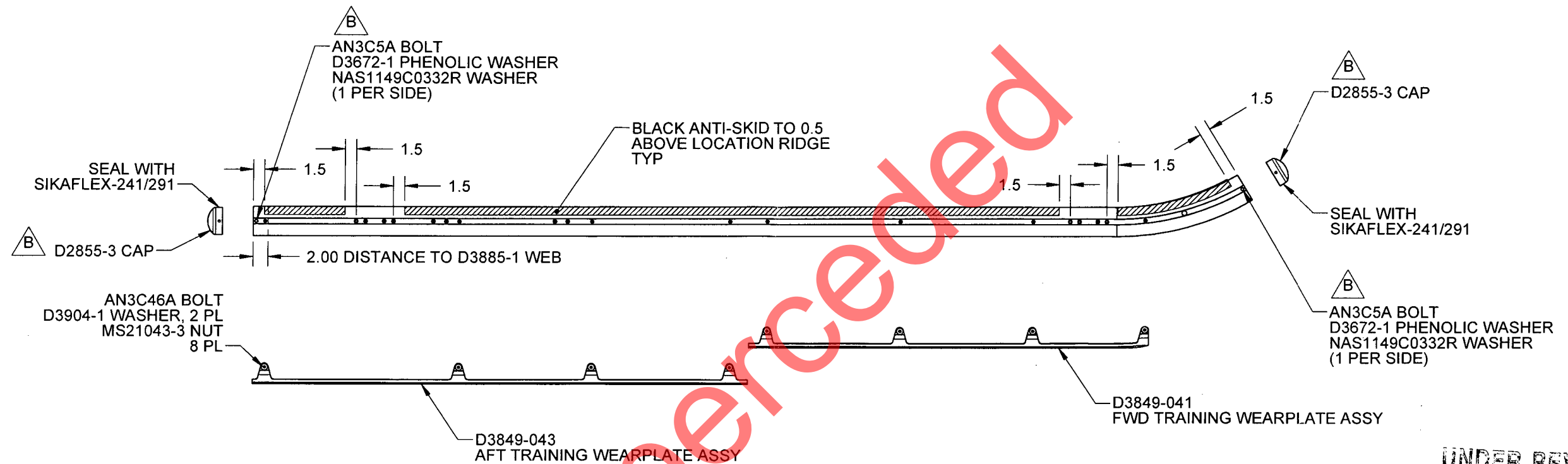


D3887-043 STANDARD SKIDTUBE ASSY WITH WEARPLATE
(MAKE FROM D3887-11)

UNDER REVIEW
13.02.25 JB

DEO ATTACHED
RELEASED
09/07/15 JWB

| | | | |
|---|---|--|--------------|
| DESIGN | RF | DART AEROSPACE USA, INC. | |
| DRAWN | RF | PORT HADLOCK, WA | |
| CHECKED |  | DRAWING NO. | REV. B |
| MFG. APPR. |  | D3887 | SHEET 3 OF 8 |
| APPROVED |  | TITLE | SCALE |
| DE APPR. |  | A119 STD SKIDTUBE ASSY | NTS |
| DATE | 09.06.30 | COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. | |
| THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. | | | |

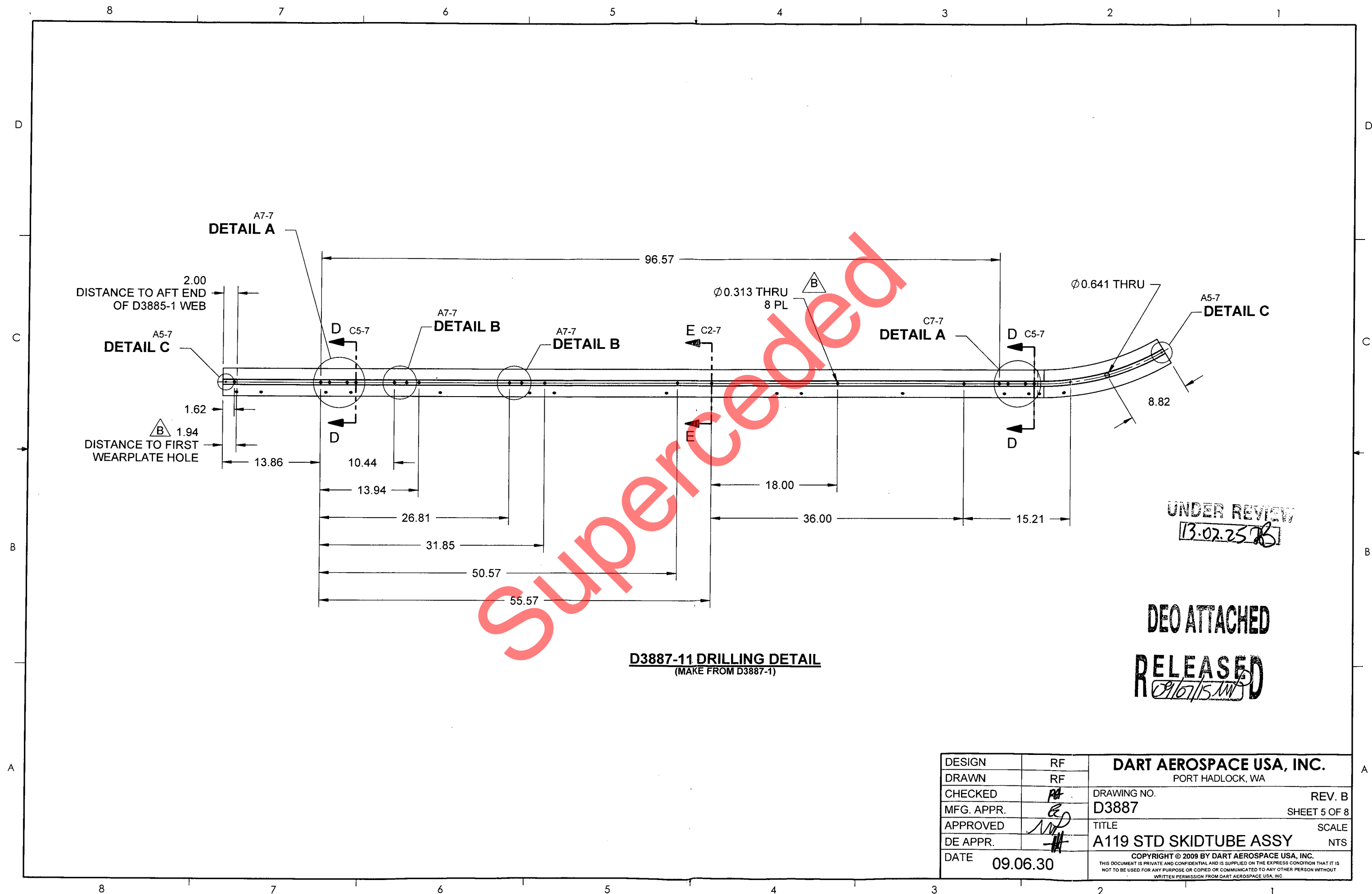


D3887-045 STANDARD SKIDTUBE ASSY WITH TRAINING WEARPLATE
(MAKE FROM D3387-13)

UNDER REVIEW
13.02.25 DLS

DEO ATTACHED
RELEASED
09/07/15 MB

| | | | |
|------------|----------|---|--------------|
| DESIGN | RF | DART AEROSPACE USA, INC. PORT HADLOCK, WA | |
| DRAWN | RF | | |
| CHECKED | RF | DRAWING NO. | REV. B |
| MFG. APPR. | MB | D3887 | SHEET 4 OF 8 |
| APPROVED | MB | TITLE | SCALE |
| DE APPR. | MB | A119 STD SKIDTUBE ASSY | NTS |
| DATE | 09.06.30 | COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. | |



D3887-11 DRILLING DETAIL
(MAKE FROM D3887-1)

UNDER REVIEW
13.07.25

DEO ATTACHED
RELEASED
09/07/15

| | | | |
|------------|----------|---|--------------|
| DESIGN | RF | DART AEROSPACE USA, INC. PORT HADLOCK, WA | |
| DRAWN | RF | | |
| CHECKED | PA | DRAWING NO. | REV. B |
| MFG. APPR. | EP | D3887 | SHEET 5 OF 8 |
| APPROVED | MP | TITLE | SCALE |
| DE APPR. | TH | A119 STD SKIDTUBE ASSY | NTS |
| DATE | 09.06.30 | COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. | |

2.00
DISTANCE TO AFT END
OF D3885-1 WEB

A5-7
DETAIL C

C7-7
DETAIL A

A7-7
DETAIL B

A7-7
DETAIL B

Ø0.313 THRU
8 PL

C7-7
DETAIL A

Ø0.641 THRU

A5-7
DETAIL C

1.62

13.86

10.44

13.94

26.81

31.85

50.57

55.57

96.57

E C2-7

18.00

36.00

15.21

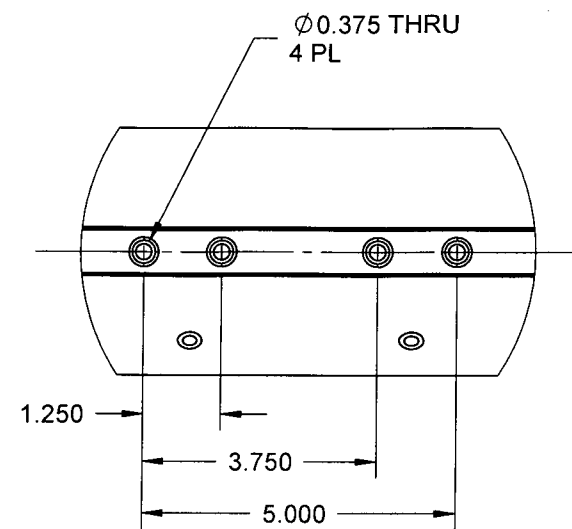
UNDER REVIEW
13.02.25 08

DEO ATTACHED

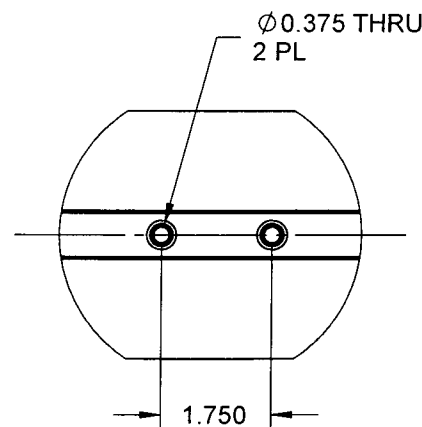
RELEASED
09/07/15 MB

D3887-13 DRILLING DETAIL
(MAKE FROM D3887-1)

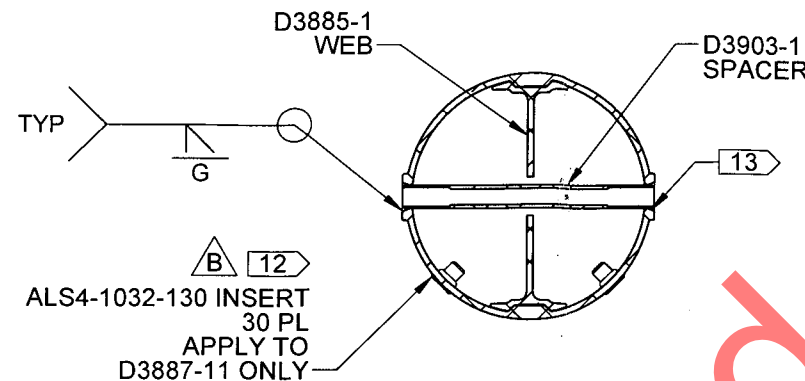
| | | | |
|------------|----------|---|--------------|
| DESIGN | RF | DART AEROSPACE USA, INC. | |
| DRAWN | RF | PORT HADLOCK, WA | |
| CHECKED | RA | DRAWING NO. | REV. B |
| MFG. APPR. | FE | D3887 | SHEET 6 OF 8 |
| APPROVED | MD | TITLE | SCALE |
| DE APPR. | AF | A119 STD SKIDTUBE ASSY | NTS |
| DATE | 09.06.30 | COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. | |



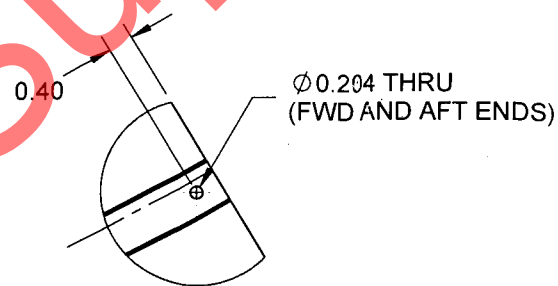
DETAIL A
SCALE 4X
D7-5
C3-5
D7-6
C3-6



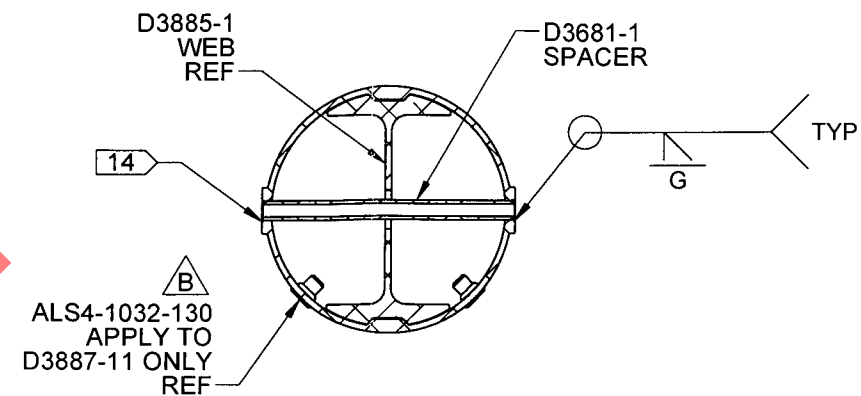
DETAIL B
SCALE 4X
C6-5
C5-5
C6-6
C5-6



SECTION D-D
SCALE 4X
(FOR 12 X Ø0.375 HOLES PER SKIDTUBE)
C7-5
C3-5
C7-6
C2-6



DETAIL C
TYPICAL
SCALE 4X
C8-5
C1-5
C8-6
C1-6



SECTION E-E
SCALE 4X
(FOR 8 X Ø0.313 HOLES PER SKIDTUBE)
C4-5
C4-6

UNDER REVIEW
13.02.25 AB

NOTES:

13) AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:

- i) CHAMFER HOLES Ø0.475 x 45°
- ii) INSERT D3903-1 SPACER
- iii) WELD INTO PLACE AND GRIND FLUSH
- iv) C'BORE TO 0.313 x 0.75 DEEP
- v) DEBURR HOLES

B
B

14) AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.313 HOLES ONLY:

- vi) CHAMFER HOLES Ø0.354 x 45° OR 0.050 DEEP x 45° (BOTH SIDES)
- vii) INSERT D3681-1 SPACER
- viii) WELD INTO PLACE AND GRIND FLUSH
- ix) DEBURR HOLES

DEO ATTACHED RELEASED
09/07/10 MP

| | | | |
|---|----------|--|--------------|
| DESIGN | RF | DART AEROSPACE USA, INC. | |
| DRAWN | RF | PORT HADLOCK, WA | |
| CHECKED | RF | DRAWING NO. | REV. B |
| MFG. APPR. | RF | D3887 | SHEET 7 OF 8 |
| APPROVED | RF | TITLE | SCALE |
| DE APPR. | RF | A119 STD SKIDTUBE ASSY | NTS |
| DATE | 09.06.30 | COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. | |
| THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. | | | |

8 7 6 5 4 3 2 1

D

D

C

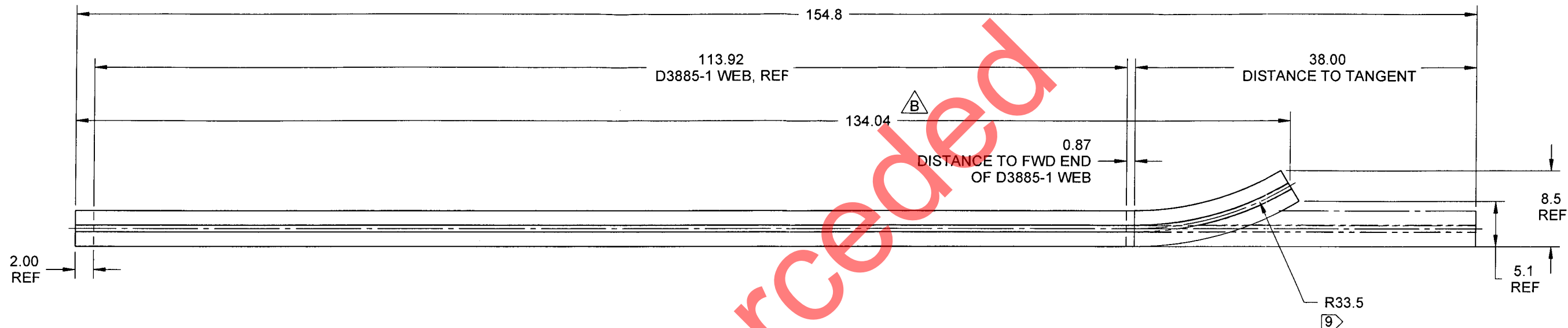
C

B

B

A

A



D3887-1 BEND DETAIL
(MAKE FROM D2500-1-190 EXTRUSION)

UNDER REVIEW
13.02.25 DB.

DEO ATTACHED
RELEASED
09/07/15 MD

| | | | |
|------------|----------|---|--------------|
| DESIGN | RF | DART AEROSPACE USA, INC. PORT HADLOCK, WA | |
| DRAWN | RF | | |
| CHECKED | PA | DRAWING NO. | REV. B |
| MFG. APPR. | ES | D3887 | SHEET 8 OF 8 |
| APPROVED | MP | TITLE | SCALE |
| DE APPR. | MP | A119 STD SKIDTUBE ASSY | NTS |
| DATE | 09.06.30 | COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. | |

8 7 6 5 4 3 2 1

| | | | | | | |
|----------------------|---------------------------------|---------------------------|---|-------------------------|---------------------------|--------------|
| DRAWING NO. D3887 | TITLE A119 STD SKIDTUBE ASSY | REV. B | DART AEROSPACE LTD ENGINEERING ORDER | D.E.O. NO. D3887-B-1 | SHEET NO. SHEET 1 OF 1 | SCALE NTS |
| DRAWN AJS | CHECKED 92 | MFG. APPR. [Signature] | APPROVED [Signature] | DE APPR. [Signature] | | |
| DATE 12.10.29 | DATE 12.10.29 | DATE 12.10.30 | DATE 12.10.30 | DATE 12.10.30 | | |

PURPOSE:

MODIFICATION OF EXISTING DESIGN TO ALLOW INSTALLATION OF CROSSBOLT SPACERS FOR FORWARD GROUND HANDLING EQUIPMENT.

PARTS LIST:

ADD THE FOLLOWING:

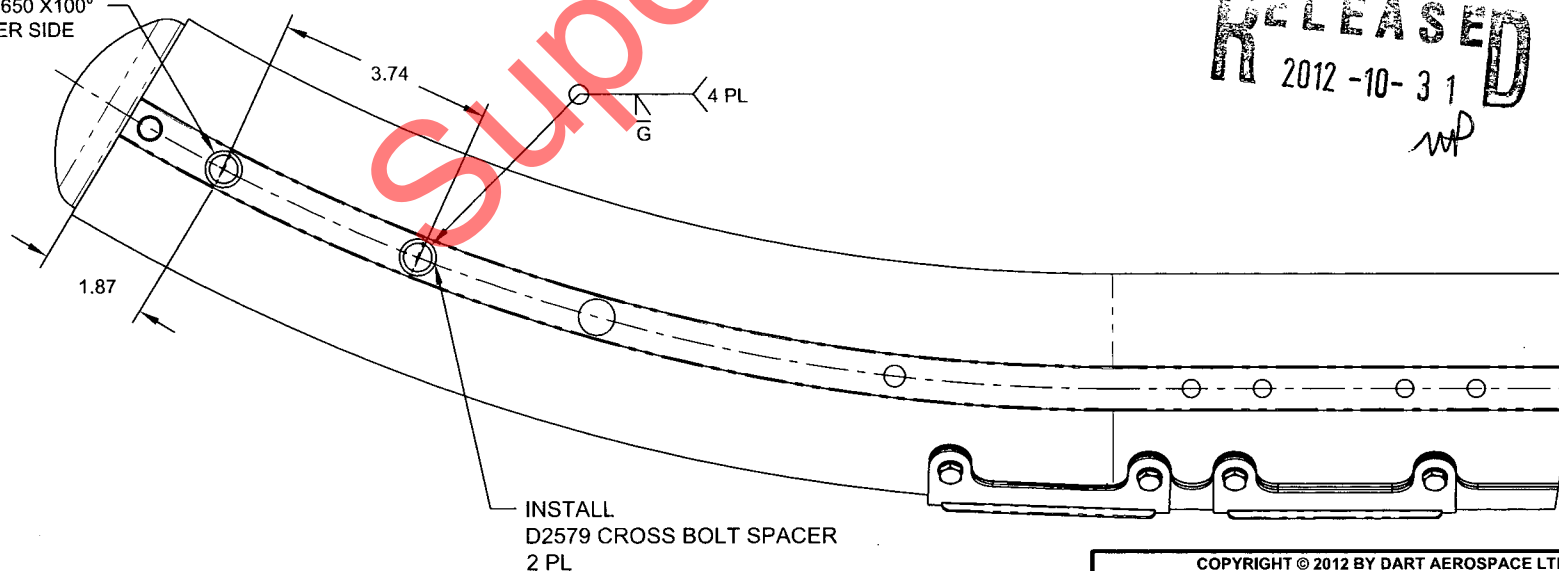
| ITEM | QTY. -041 | QTY. -043 | QTY. -045 | PART NUMBER | DESCRIPTION |
|------|--------------|--------------|--------------|-------------|---|
| | X | | | D3887-041 | STD SKIDTUBE ASSY WITH WEARPAD |
| | | X | | D3887-043 | STD SKIDTUBE ASSY WITH WEARPLATE |
| | | | X | D3887-045 | STD SKIDTUBE ASSY WITH TRAINING WEARPLATE |

| | | | | | |
|----|---|---|---|-------|-------------------|
| 10 | 2 | 2 | 2 | D2579 | CROSS BOLT SPACER |
|----|---|---|---|-------|-------------------|

ADD THE DRILLING DETAIL BELOW TO DRILLING INFORMATION (SHEETS 5 & 6):

ADD CROSSBOLT SPACER INSTALLATION INFORMATION TO -041 THRU -045 (SHEETS 2 - 4):

DRILL Ø0.500 THRU
CSK Ø0.650 X100°
2 PL PER SIDE



RELEASED
2012-10-31
[Signature]